Applicant : Geoffrey Brent et al.
Serial No. : 10/596,066
Filed : April 12, 2007
Page : 2 of 10

Please amend the claims as follows (this listing replaces all prior versions):

1. (Currently Amended) In open cut mining for recoverable mineral, a method of blasting plural layers of material in a blast field including a first body of material comprising at least a first layer of material and a second body of material comprising at least a second layer of material over the first body of material, the blast field having at least one free face at the level of the second body of material, the method comprising drilling blastholes in the blast field through the second body of material and, for at least some of the blastholes, at least into the first body of material, loading the blastholes with explosives so that for at least some of the blastholes a respective deck of explosives is provided in each of the first and second bodies of material and then firing the explosives in the blastholes in a single cycle of drilling, loading and blasting at least the first and second bodies of material, wherein the first body of material is subjected to a stand-up blast in said single cycle and said second body of material is subjected to a throw blast in said single cycle whereby at least a substantial part of the second body of material is thrown clear of the blast field beyond the position of said at least one free face.

- 2. (Original) A method according to claim 1, wherein blasting is of plural strata of material including a first body of material comprising at least a first stratum of material and a second body of material comprising at least a stratum of overburden over the first body of material.
- 3. (Original) A method of blasting according to claim 1, wherein at least 15% of the second body of material is thrown clear of the blast field in said single cycle.
- 4. (Original) A method of blasting according to claim 1, wherein at least 20% of the second body of material is thrown clear of the blast field in said single cycle.
- 5. (Original) A method of blasting according to claim 1, wherein at least 25% of the second body of material is thrown clear of the blast field in said single cycle.

Applicant : Geoffrey Brent et al. Serial No. : 10/596,066 Filed : April 12, 2007

- 3 of 10 Page

6. (Original) A method of blasting according to claim 2, wherein the second body of material consists essentially of the stratum of overburden.

- 7. (Original) A method of blasting according to claim 6, wherein the explosives in the second body of material are spaced from the bottom of the second body of material.
- 8. (Original) A method of blasting according to claim 1, wherein the explosives in each of at least some of the blastholes in the second body of material are provided as a main column of explosives and as a relatively small deck of explosives spaced from and beneath the main column.
- 9. (Original) A method of blasting according to claim 8, wherein the relatively small deck of explosives is fired on a different delay to the main column.
- 10. (Original) A method of blasting according to claim 2, wherein the first body of material comprises at least two strata of recoverable mineral and at least one stratum of interburden therebetween.
- 11. (Original) A method of blasting according to claim 10, wherein the explosives in the first body of material are disposed only in the at least one stratum of interburden.
- 12. (Original) A method of blasting according to claim 11, wherein the explosives in the interburden are spaced from the strata of recoverable mineral.
- 13. (Original) A method of blasting according to claim 12, wherein the blastholes are not drilled into the lowermost strata of recoverable mineral in the first body of material.
- 14. (Original) A method of blasting according to claim 11, wherein the explosives in each of at least some of the blastholes in the interburden are provided as a main column of explosives and as a relatively small deck of explosives spaced from and beneath the main column.

Applicant : Geoffrey Brent et al. Serial No. : 10/596,066 Filed : April 12, 2007

· 4 of 10 Page

15. (Original) A method of blasting according to claim 14, wherein the relatively small deck of explosives is fired on a different delay to the main column.

- 16. (Original) A method of blasting according to claim 1, wherein not all of the blastholes in the second body of material extend into the first body of material.
- 17. (Original) A method of blasting according to claim 16, wherein at least some of the blastholes in the second body of material do not extend to the bottom of the second body of material.
- 18. (Original) A method of blasting according to claim 2, wherein a third body of material is disposed between the first and second bodies of material, the third body of material comprising at least one stratum of burden and/or recoverable mineral, and wherein the third body of material is subjected to a throw blast in said single cycle of different design to the throw blast to which the second body of material is subjected in said single cycle.
- 19. (Original) A method of blasting according to claim 1, wherein the first body of material is buffered in the direction of throw defined by the throw blast of the second body of material.
- 20. (Original) A method of blasting according to claim 19, wherein the buffering is at least partly provided by material from the second body of material thrown in said throw blast in said single cycle.
- 21. (Original) A method of blasting according to claim 20, wherein the portion of the second body of material designed to provide the buffering material for the first body of material is adjacent the at least one free face and is divided into layers by respective decks of explosives in the blastholes in said portion of the second body of material, and wherein all the decks of explosives in any one layer of said portion are fired before any deck in a layer of said portion beneath said one layer.
- 22. (Original) A method of blasting according to claim 20, wherein the explosives in blastholes in the first body of material are initiated from the back of the blast (remote from the location of the free face) towards the front of the blast (adjacent the location of the free face).

Applicant : Geoffrey Brent et al. Serial No. : 10/596,066 Filed : April 12, 2007

5 of 10 Page

23. (Original) A method of blasting according to claim 22, wherein the explosives in blastholes in the first body of material adjacent the back of the blast are initiated while material of the second body of material thrown by the throw blast in said single cycle is airborne.

- 24. (Original) A method of blasting according to claim 1, wherein the explosives in blastholes in the first body of material are initiated from the back of the blast (remote from the location of the free face) towards the front of the blast (adjacent the location of the free face).
- 25. (Original) A method of blasting according to claim 1, wherein the explosives in blastholes in one or both of the first and second bodies of material have an initiation point remote from edges of the blastfield.
- 26. (Original) A method of blasting according to claim 25, wherein the blast in said one or both of the first and second bodies of material proceeds in multiple directions from said initiation point.
- 27. (Original) A method of blasting according to claim 1, wherein the explosives in blastholes in the second body of material adjacent the back of the blast (remote from the location of the free face) are initiated before the explosives in blastholes in the second body of material further forward (closer to the location of the free face).
- 28. (Original) A method of blasting according to claim 1, wherein in said single cycle the stand-up blast in the first body of material is initiated after initiation of the throw blast in the second body of material.
- 29. (Original) A method of blasting according to claim 28, wherein the delay between initiation of the throw blast in the second body of material and initiation of the stand-up blast in the first body of material is about 40 seconds or less.

Applicant : Geoffrey Brent et al. Serial No. : 10/596,066 Filed : April 12, 2007

Page : 6 of 10

30. (Original) A method of blasting according to claim 29, wherein said delay is in the range of about 500 to 25000 ms.

- 31. (Original) A method of blasting according to claim 1, wherein in said single cycle the stand-up blast in the first body of material is initiated before initiation of the throw blast in the second body of material.
- 32. (Original) A method of blasting according to claim 1, wherein the explosives in the blast field are initiated by an electronic detonator delay system.
- 33. (Original) A method of blasting according to claim 1, wherein said loading and blasting in said single cycle are preceded by blasthole logging to determine the location of any stratum of recoverable mineral in each blasthole.
- 34. (Original) A method of blasting according to claim 33, wherein the blasthole logging comprises gamma-ray logging.
- 35. (Original) A method of blasting according to claim 1, wherein differential blast design features for achieving the throw blast in the second body of material and the stand-up blast in the first body of material are selected from one or more of blasthole pattern, explosive type, explosive density, blasthole loading configuration, explosive mass, powder factor, stemming, buffering and explosive initiation timing.
- 36. (Previously Presented) A method of blasting according to claim 1, wherein the blastholes in the blast field are disposed in plural rows extending substantially parallel to the at least one free face, and wherein, for said at least some of the blastholes with a respective deck of explosives in each of the first and second bodies of material, the blast in the first body of material has different interhole delays in any one row and/or different inter-row delays between adjacent rows to the blast in the second body of material.

37 - 68. (Canceled)

Applicant : Geoffrey Brent et al. Serial No. : 10/596,066 Filed : April 12, 2007 Page : 7 of 10

(New) In open cut mining for recoverable mineral, a method of blasting plural layers 69. of material in a blast field including a first body of material comprising at least a first layer of material and a second body of material comprising at least a second layer of material over the first body of material, the blast field having at least one free face at the level of the second body of material, the method comprising drilling blastholes in the blast field through the second body of material and, for at least some of the blastholes, at least into the first body of material, loading the blastholes with explosives so that for at least some of the blastholes a respective deck of explosives is provided in each of the first and second bodies of material and then firing the explosives in the blastholes in a single cycle of drilling, loading and blasting at least the first and second bodies of material, wherein the first body of material is subjected to a stand-up blast in said single cycle and said second body of material is subjected to a throw blast in said single cycle whereby at least a substantial part of the second body of material is thrown clear of the blast field beyond the position of said at least one free face, and wherein the throwblast in any selected blasthole precedes the standup blast in said blasthole and the delay between initiation of the throw and stand-up blasts in said blasthole is at least about 500ms.

70. (New) In open cut mining for recoverable mineral, a method of blasting plural layers of material in a blast field including a first body of material comprising at least a layer of recoverable mineral and a second body of material comprising overburden over the first body of material, the blast field having at least one free face at the level of the second body of material, the method comprising drilling blastholes in the blast field through the second body of material and, for at least some of the blastholes, at least into the first body of material, loading the blastholes with explosives so that for at least some of the blastholes a respective deck of explosives is provided in each of the first and second bodies of material and then firing the explosives in the blastholes in a single cycle of drilling, loading and blasting at least the first and second bodies of material, wherein the first body of material is subjected to a stand-up blast in said single cycle and said second body of material is subjected to a throw blast in said single cycle whereby at least a substantial part of the second body of material is thrown clear of the blast field beyond the position of said at least one free face.

Applicant : Geoffrey Brent et al. Serial No. : 10/596,066 Filed : April 12, 2007

Page : 8 of 10

71. (New) In open cut mining for recoverable mineral, a method of blasting plural layers of material in a blast field including a first body of material comprising a layer of interburden and a layer of coal over the interburden and a second body of material comprising overburden over the first body of material, the blast field having at least one free face at the level of the second body of material, the method comprising drilling blastholes in the blast field through the second body of material and, for at least some of the blastholes, at least into the first body of material, loading the blastholes with explosives so that for at least some of the blastholes a respective deck of explosives is provided in each of the first and second bodies of material and then firing the explosives in the blastholes in a single cycle of drilling, loading and blasting at least the first and second bodies of material, wherein the first body of material is subjected to a stand-up blast in said single cycle and said second body of material is subjected to a throw blast in said single cycle whereby at least a substantial part of the second body of material is thrown clear of the blast field beyond the position of said at least one free face, and wherein the throwblast in any blasthole of said at least some of the blastholes precedes the stand-up blast in said blasthole.